

The following listing of claims will replace all prior version, and listing of claims, in this application.

Listing of the claims:

Claims 1-5 (canceled).

6. (Previously Presented) The method of claim 38, wherein a human hematopoietic cell composition enriched in human T-cells is cultured.

7. (Previously Presented) The method of claim 38, wherein the culture medium is continuously perfused at a ramped rate proportional to the lactate concentration and/or cell density to replace the culture medium without substantial dilution of the cell density.

Claims 8 and 9 (Cancelled).

10. (Currently Amended) The method of claim 38, wherein the mature human hematopoietic cells are cultured for at least 2 days.

11. (Previously Presented) The method of claim 38, wherein the culture medium contains at least 1 growth factor which stimulates the proliferation of the cells.

12. (Currently Amended) The method of claim 38, wherein the cultured ~~lineage~~ committed mature human hematopoietic cells have enhanced replicative potential.

Claims 13-37 (Canceled).

38. (Currently Amended) A method for obtaining ~~lineage-committed~~ mature human cells with enhanced biological function comprising culturing a ~~lineage-committed~~ mature human hematopoietic cell composition, ~~wherein the lineage-committed human cells are differentiated to at least a point where they are programmed to develop only into a specific type of cell,~~ under physiologically acceptable liquid culture conditions, said conditions including replacement of a liquid culture medium is replaced at rate of from 50% to 100% daily replacement for a cell density of from  $1 \times 10^4$  to  $1 \times 10^7$  cells per ml of culture for more than one day and for a time sufficient to obtain mature ~~human-lineage-committed~~ hematopoietic cells with enhanced biological function, wherein said enhanced biological function is relative to the biological function of the ~~lineage-committed~~ mature human hematopoietic cells that are cultured in a static culture.

39. (Currently Amended) The method of claim 38, wherein the biological function enhanced in the cultured mature human hematopoietic cells comprises at least one member selected from the group consisting of secretion of substances, cell-cell communication, receptor expression on the cell surface, cytolysis, antigen presentation, antigen processing, an ability to home *in vivo* to sites for function, and the an ability to proliferate leading to development/regeneration of tissue.

40. (Currently Amended) The method of claim 38, wherein the biological function enhanced in the ~~isolated-lineage-committed~~ cultured mature human hematopoietic cells comprises increased release of cytokines.

41. (Currently Amended) The method of claim 38, wherein the biological function enhanced in the ~~isolated lineage-committed~~ cultured mature human hematopoietic cells comprises increased cytolytic activity.

Claims 42-48 (Cancelled).

49. (Currently Amended) The method of claim 39, wherein the biological function enhanced in the cultured mature human hematopoietic cells comprises secretion of substances.

50. (Currently Amended) The method of claim 39, wherein the biological function enhanced in the cultured mature human hematopoietic cells comprises cell-cell communication.

51. (Currently Amended) The method of claim 39, wherein the biological function enhanced in the cultured mature human hematopoietic cells comprises receptor expression on the cell surface.

52. (Currently Amended) The method of claim 39, wherein the biological function enhanced in the cultured mature human hematopoietic cells comprises cytolysis.

53. (Currently Amended) The method of claim 39, wherein the biological function enhanced in the cultured mature human hematopoietic cells comprises antigen presentation.

54. (Currently Amended) The method of claim 39, wherein the biological function enhanced in the cultured mature human hematopoietic cells comprises antigen processing.

55. (Currently Amended) The method of claim 39, wherein the biological function enhanced in the cultured mature human hematopoietic cells comprises an ability to home *in vivo* to sites for function.

56. (Currently Amended) The method of claim 39, wherein the biological function enhanced in the cultured mature human hematopoietic cells comprises ~~and the~~ an ability to proliferate leading to development/regeneration of tissue.

57. (Currently Amended) The method of claim 38, wherein the ~~lineage-committed~~ mature human hematopoietic cell composition comprises ~~at least one type of cell~~ a cell selected from the group consisting of megakaryocytes, ~~monocytes~~, neutrophils, basophils, eosinophils, tumor specific cytotoxic T lymphocytes, cytokine induced killer cells, antigen presenting cells to tumors, and antigen presenting cells to infectious diseases, ~~leukocyte precursors, neutrophils,~~ and mixtures thereof.

58. (Currently Amended) The method of claim 57, wherein the ~~lineage-committed~~ mature human hematopoietic cell composition comprises megakaryocytes.

Claim 59 (Cancelled).

60. (Currently Amended) The method of claim 57, wherein the ~~lineage-committed~~ mature human hematopoietic cell composition comprises neutrophils.

61. (Currently Amended) The method of claim 57, wherein the ~~lineage-committed~~ mature human hematopoietic cell composition comprises basophils.

62. (Currently Amended) The method of claim 57, wherein the ~~lineage-committed~~ mature human hematopoietic cell composition comprises eosinophils.

63. (Currently Amended) The method of claim 57, wherein the ~~lineage-committed~~ mature human hematopoietic cell composition comprises tumor specific cytotoxic T lymphocytes.

64. (Currently Amended) The method of claim 57, wherein the ~~lineage-committed~~ mature human hematopoietic cell composition comprises cytokine induced killer cells.

65. (Currently Amended) The method of claim 57, wherein the ~~lineage-committed~~ mature human hematopoietic cell composition comprises antigen presenting cells to tumors.

66. (Currently Amended) The method of claim 57, wherein the ~~lineage-committed~~ mature human hematopoietic cell composition comprises antigen presenting cells to infectious diseases.

Claims 67-69 (Cancelled).